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IMPLEMENTATION NOTICE--INTERNAL INFORMATION--DOES NOT NEED TO BE INSERTED IN MANUAL--GIVE TO MANUAL HOLDER				
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E. M. Schroeder, Manager
Management Standards
E. M. Schroeder
Date: 4-20-90

I have personally received the revisions identified for release in this package and assume full responsibility for updating my manual in accordance with instructions.

P. A. Thurman, Manager
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Westinghouse Hanford Company

Internal Memo

From: Environmental Division
Phone: 3-5417 T1-30
Date: April 16, 1990
Subject: IMPLEMENTATION NOTICE - WHC-CM-7-5, PART Y

To: Manual Holders

WHC-CM-7-5, Part Y, is being revised to reflect Westinghouse Hanford Company's current policy regarding Polychlorinated Biphenyl (PCB) waste. Part Y did not correctly identify the handling of radioactive mixed PCB waste or include the management of PCB waste through the 616 Facility. This was noted by a DOE/RL monitor and brought to the attention of Environmental Protection for correction. The changes to Part Y will now correctly indicate the current practice for handling of both radioactive and nonradioactive PCB waste.

No additional training should be required. These changes should have little if any impact on other groups/departments/divisions as they only reflect the current practices on PCB waste management.

Stephen McKinney,
Author

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Enclosure

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TITLE:

ASBESTOS AND POLYCHLORINATED BIPHENYLS

Approved by

QE Lerch

R. E. Lerch, Manager
Environmental Division

1.0 PURPOSE

The purpose of this Part is to establish WHC standards for asbestos and polychlorinated biphenyls (PCBs) on the Hanford Site. These standards are intended to ensure that WHC personnel control, handle, and dispose of these materials in a manner that:

1. Protects the safety of employees and the general public.
2. Minimizes spills and releases to the environment.
3. Meets applicable U.S. Department of Energy (DOE), Federal, state, and local regulatory requirements.

2.0 SCOPE

1. Asbestos

This part applies to the removal of asbestos from facilities and facility components and the subsequent disposal of the asbestos. This part complements WHC-CM-4-3, Industrial Safety Manual, Standard C-3, "Asbestos Control," which covers the safety aspects of asbestos removal.

2. Polychlorinated Biphenyls

The responsibilities and requirements of this part apply to the following radioactive and nonradioactive equipment and materials containing two (2) parts per million (ppm) PCBs* or more.

a. Hydraulic and heat transfer systems
b. Materials (rags, debris, soil, etc.)
c. Transformers, capacitors, and other electrical equipment
d. Waste oils.

*Two (2) ppm using ASTM method D-4059-86 or one (1) ppm using EPA method 60/4-81-045.

The requirements of this part are intended to supplement WHC-CM-4-3, Standard C-1, "Polychlorinated Biphenyls," which is concerned with the control of employee exposure to PCBs.

3.0 RESPONSIBILITIES

1. Building Managers and Operations Managers shall:

   a. Ensure that all waste asbestos materials are removed, handled, packaged, labeled, stored and disposed of in compliance with the requirements of this standard.

   b. Maintain the necessary inventory, storage, cleanup, and disposal records for waste asbestos materials and items, and materials containing PCBs.

   c. Ensure that personnel handling asbestos materials and PCB items and materials containing PCBs have received proper training.

   d. Ensure that all items and materials containing PCBs within their facility or cognizance are handled and controlled in accordance with the requirements of this part.

   e. Ensure that all new oils and electrical items used are certified free of PCBs.

   f. Promptly take the following actions in the event of any spill or release of PCBs:

      (1) Environmental Protection shall be immediately notified.

      (2) Any leak to electrical equipment that requires equipment inspection and/or repair shall be immediately reported to Electrical Utilities.

2. Industrial Safety and Fire Protection shall:

   a. Establish safety policies for handling asbestos materials and PCB items and materials.

   b. Overview removal, handling, packaging, labeling, storing, and disposal of radioactive and nonradioactive asbestos materials.

3. Solid Waste Engineering shall:

   a. Maintain asbestos disposal records for the Hanford Site.

   b. Issue a quarterly report that summarizes disposal of nonradioactive asbestos on the Hanford Site and forecasts disposal quantities for the next calendar year.

   c. Prepare and submit to U.S. Department of Energy-Richland Operations Office (DOE-RL) the annual radioactive PCB status report for the Hanford Site by June 1.

   d. Provide spill designations for PCB releases.

   e. Provide "Chemical Waste Disposal Analysis" designating PCB wastes and coordinating disposal.

   f. Provide assistance and direction for containment and remediation of PCB spills.

4. Electrical Utilities shall:

   a. Ensure that all items and materials containing PCB under their cognizance are handled, controlled, and disposed of in accordance with the requirements of this part.

   b. Provide approved storage for items and materials containing nonradioactive PCBs.

   c. Maintain a database for sitewide inventory, inspection, storage, and disposal records for PCB items and materials containing nonradioactive PCBs.

   d. Maintain an updated registration of all PCB transformers with the Hanford Fire Department and responsible building managers.

   e. Prepare and submit to DOE-RL by June 1 the annual nonradioactive PCB status report for the Hanford Site.

   f. Provide timely maintenance and repair of leaks in PCB and PCB-contaminated transformers in accordance with applicable state and federal regulations.

   g. Provide spill control and cleanup services in response to PCB spills that require corrective actions beyond the abilities and responsibilities of the operating facilities.

h. Notify Environmental Protection of any spill or release of materials that contain PCB.

i. Provide support to Hanford Site PCB Task Force.

5. Site Support shall provide environmental training for personnel handling asbestos and PCBs.

6. Regulatory Compliance shall:

a. Establish standards necessary to ensure that WHC facilities and equipment are in compliance with applicable DOE and Federal regulations.

b. Provide support to the Hanford Site PCB Task Force.

7. Environmental Assurance shall:

a. Assist building managers, operating managers, and support personnel in implementing and meeting the requirements of this part. Notify the Area or Building Emergency Director if the spill represents an exposure risk or release to the environment.

b. Investigate spills or releases of PCBs and file the necessary reports.

c. Overview cleanup of spills or releases of PCBs.

d. Overview storage and disposal of PCB items and materials.

e. Provide support to the Hanford Site PCB Task Force.

4.0 REQUIREMENTS

4.1 GENERAL REQUIREMENTS FOR WASTE ASBESTOS MATERIALS

Environmental requirements concerning handling and disposal of asbestos materials are based on the ability of the material to become airborne. Asbestos materials are divided into two general categories: friable asbestos and non-friable asbestos. Friable asbestos is defined as material containing more than 1% asbestos by weight that hand pressure can crumble, pulverize, or reduce to powder when dry. If not handled properly, fibers of friable asbestos can become airborne, resulting in a potential hazard to personnel and a potential release to the environment.

Basis: See the definition for "asbestos-containing waste materials" and "friable asbestos" in 40 CFR 61.141, "Definitions."

Asbestos materials must also be controlled according to whether the material is radioactive or non-radioactive. The following requirements apply to handling, packaging, storing, and disposing of radioactive and non-radioactive asbestos materials on the Hanford Site.

1. All work involving removing, handling, packaging, labeling and storing asbestos materials shall be conducted in accordance with the requirements of WHC-CM-4-3, Standard C-3.

2. All work involving removal, handling, packaging, labeling, storing, and disposing of friable asbestos shall be controlled to prevent any visible release of asbestos fibers to the environment. This may be accomplished by the use of water sprays, ventilation filtration equipment, proper packaging techniques, and other means of controlling airborne particulate materials.

3. All non-radioactive waste asbestos materials (including friable and non-friable forms) shall be disposed of in accordance with the requirements contained in Part G, "Standard for Nonradioactive-Nonhazardous Solid Waste Disposal," of this manual and Fleet Operations, Transportation and Maintenance Management Standard Operating Procedure 25.2, "Disposal of Asbestos at Central Landfill."

4. All radioactive waste asbestos materials (including friable and non-friable forms) shall be disposed of in accordance with the requirements contained in Part H, "Radioactive-Solid Waste Storage and Disposal," of this manual and WHC-EP-0063-1, Hanford Radioactive Solid Waste Packaging, Storage, and Disposal Requirements.

Basis: The requirements in 1 through 4, above, reflect the requirements in 40 CFR 61.145, 146, 147, 152, 154, 155, and 156, and DOE-RL Order 5480.10A, "Industrial Hygiene Program."

4.2 GENERAL REQUIREMENTS FOR ITEMS AND MATERIALS CONTAINING PCB

Items and materials containing Polychlorinated Biphenyls are regulated under 40 CFR 761, "Polychlorinated Biphenyls Manufacturing, Processing, Distribution In Commerce, and Use Prohibitions." The following definitions will be used to describe the regulatory limits for PCB items and materials on the Hanford Site.

PCB Materials. PCB materials include oils, liquids, rags, absorbent materials, etc., that contain PCBs in concentrations of 2 ppm (or 1 ppm depending on test method) or greater.

PCB-Contaminated Items. PCB-contaminated items include transformers, circuit breakers, switch-gear, reclosers, voltage regulators, etc., that contain PCBs in concentrations of 50 ppm or greater but less than 500 ppm.

Mineral oil transformers that have never been sampled for PCBs are classified as "PCB-contaminated" until further testing is completed.

PCB Container. Any package, can, bottle, bag, barrel, drum, tank, or other device that contains PCBs or PCB articles and whose surface(s) has been in direct contact with PCBs.

PCB Items. PCB items include electrical equipment (transformers, rectifiers, switch-gear, capacitors, light ballasts, etc.) that contain PCB in concentrations of 500 ppm or greater.

The following requirements apply to using, handling, packaging, storing, and disposing of materials and items containing regulated concentrations of PCBs.

1. The following equipment, materials, and locations shall be clearly labeled with the large (6" x 6") PCB ML label. Where the PCB item is too small to accommodate the large ML label, a smaller PCB ML label may be used.

   a. All drums containing PCBs.

   b. All hydraulic and heat transfer systems containing 50 ppm or greater PCBs.

   c. All PCB transformers.

   d. All PCB large (containing 3 pounds or more of dielectric fluid) capacitors at the time of removal from service.

   e. All vehicles used to transport more than 45 Kg (99.4 lbs) of PCB materials or one or more PCB transformers (labeled on all four sides).

   f. All PCB storage areas including temporary storage.

   g. All doors, fences, hallways, or means of entrance (excluding grates and manhole covers) to a PCB transformer.

   Basis: These requirements reflect the requirements found at 40 CFR 761.40.

2. The following conditions and PCB items are prohibited on the Hanford Site.

   a. PCB transformers and large capacitors in a location that poses an exposure risk to food and feed.

   b. Hydraulic and heat transfer systems with fluids that contain 50 ppm PCBs or greater.

c. Large capacitors (both high and low voltage), unless they are located in a restricted-access electrical substation or a restricted-access indoor installation that provides spill containment.

d. Combustible materials located within 5 meters of a PCB transformer or PCB transformer enclosure.

e. The installation of a PCB transformer in or within 30 meters of a commercial building or onsite office building.

Basis: These requirements reflect the requirements found in 40 CFR 761.30(a).

3. All hydraulic and heat transfer systems containing greater than 2 quarts fluid that have not been replaced or flushed since January 1983 shall be tested for PCBs.

Basis: This requirement reflects the requirement found in 40 CFR 761.30(d) and (e). The "2 quarts" threshold is based on small hydraulic systems, as found on vehicles, which would be changed every year as part of the vehicle preventive maintenance and would not have to be tested because after January 1, 1983, no more PCB fluids would have been purchased.

4. All PCB transformers shall be registered with the Hanford Fire Department and the cognizant Area or Building Administrator. The following information shall be included in the registration.

a. The address and physical location of the transformer(s).

b. The principal constituent of the dielectric fluid in the transformer(s).

c. The type of transformer installation(s).

d. The name and telephone number of the person to contact in the event of a fire involving the equipment.

Basis: These requirements reflect the requirements found in 40 CFR 761.30(a)(1)(vi).

5. Copies of the inspection forms for the following are to be forwarded to Electrical Utilities and Environmental Protection for transformers at FFTF and 105-KE and KW, and rectifiers at 189-D and 335 Building.

   a. The PCB transformers with risk reduction measures (containing less than 60,000 ppm PCB and/or provided with spill containment) shall be visually inspected at least annually.

   b. All PCB transformers without risk reduction measures shall be visually inspected at least once every 3 months. There shall be a minimum of 30 days between each inspection.

   Basis: These requirements reflect the requirements found in 40 CFR 761.30(a)(1)(xiii).

6. The following permanent corrective actions shall be completed in response to a spill or leak of PCBs.

   a. All visible traces of the spilled material shall be removed.

   b. Depending on the location of the leak and the concentration of the spilled material, different cleanup procedures and a verification sample may be required. These requirements can be obtained from Electrical Utilities and/or Environmental Protection.

   c. A cleanup certification sample shall be collected and analyzed to verify that residual PCB concentrations are below the levels determined in paragraph 6(b) above.

   d. All discarded PCB items, PCB materials, and spent absorbent materials shall be packaged, labeled, and disposed in accordance with paragraph 4.3.

   e. Follow-up inspections shall be conducted and documented by the equipment manager to ensure that the leaking equipment has been adequately repaired.

   Basis: These requirements reflect the requirements found in 40 CFR 761.125.

7. The following records and reports are required.

   a. Complete inventory of all PCB-contaminated and PCB items located on the Hanford Site.

b. Records of inspection and maintenance history for all PCB transformers. The records shall be maintained for at least 3 years after the equipment has been disposed and shall contain the following information.

(1) The location of the transformer.

(2) The date of each visible inspection and the name of the inspector.

(3) Information concerning any leaks or spills associated with the transformer. This information should include the date and location of the leak, an estimate of the spilled volume, and the date and description of any cleanup, containment, repair, or replacement.

c. An annual PCB report shall be prepared that includes the following information.

(1) The dates when PCB materials and PCB items were removed from service, placed into storage for disposal, and transported for disposal.

(2) The total quantities of PCB materials and PCB items removed from service, placed into storage for disposal, and transported for disposal.

(3) The location of the initial disposal or storage facility for PCB materials and PCB items removed from service.

(4) The total number of PCB transformers removed from service and remaining in service and the total weight of PCBs contained in them.

(5) PCB container contents identified.

(6) Total number of PCB capacitors removed from service and remaining in service.

Basis: The requirements in paragraphs 7.a and 7.c above reflect the requirements in 40 CFR 761.180. The requirements in paragraph 7.b above reflect the requirements in 40 CFR 761.30.

4.3 TEMPORARY STORAGE OF PCB MATERIALS AND PCB ITEMS

The following PCB items may be stored for up to 30 days in a temporary storage area, provided that a notation is attached to the PCB item or container indicating the date the item was removed from service:

1. Non-leaking PCB articles and PCB equipment.

2. Leaking PCB articles and PCB equipment if the PCB items are placed in a non-leaking PCB container that contains sufficient absorbent material to absorb any liquid PCBs remaining in the PCB items.

3. PCB containers containing non-liquid PCBs such as contaminated soil, rags, and debris.

4. The PCB containers containing liquid PCBs at a concentration between 50 and 500 ppm, provided a Spill Prevention, Control and Countermeasures Plan (SPCC) has been prepared for the temporary storage area in accordance with 40 CFR 112, "Oil Pollution Prevention." In addition, each container must bear a notation that indicates that the liquids in the drum do not exceed 500 ppm PCB.

   Basis: These requirements reflect the requirements found in 40 CFR 761.65(c)(1).

4.4 STORAGE FOR DISPOSAL FACILITIES

The WHC operates Storage For Disposal (SFD) Facilities at the 212-P Building located in the 200-N Area, the 616 Facility located in the 600 Area, and at the Central Waste Complex/Mixed Waste Storage Facility located in the 200-W Area. The 212-P Facility is operated by Electrical Utilities, and the 616 Facility and the Central Waste Complex are operated by Defense Waste Management/Solid Waste Management. The SFD facilities shall be operated in a manner that complies with the following requirements.

1. Unconditionally released PCB materials, PCB-contaminated items, and PCB items may be stored at the 212-P SFD facility or 616 SFD Facility. No stored item or material shall remain in storage for more than 9 months from the date when it was first placed into storage, including temporary storage.

2. Low-level and transuranic (TRU) contaminated PCB materials, PCB-contaminated items, and PCB items may be stored at the Central Waste Complex/Mixed Waste Storage Facility. Low-level and TRU contaminated items or materials shall remain in storage until such time that permanent disposal has been determined.

3. The facility shall have the following minimum design features.

   a. An adequate roof and walls to prevent rain water from reaching items and materials in storage.

   b. A continuous, smooth, impervious floor area that contains no drain valves, floor drains, expansion joints, sewer lines, or other openings that would allow release of liquids.

   c. A continuous, smooth, impervious curbing that is at least 6 inches in height and capable of containing 2 times the volume of the largest article in storage or 25% of the total volume in storage, whichever is greater.

   d. The SFD facility shall not be located on the 100-year flood plain.

   e. An up-to-date spill contingency plan or SPCC Plan.

4. PCB materials between 2 and 50 ppm may be managed as non-PCB materials and need not be stored at the SFD facilities. Unconditionally released materials may be submitted to offsite contractors for final disposal. Radiologically contaminated PCB materials may be placed in the low-level waste burial grounds or TRUSAF, as appropriate. The PCB oils from transformers and large capacitors between 2 and 50 ppm are regulated by WAC 173-303-71 and WAC 173-303-9904, "Dangerous Waste Regulations," but WHC policy handles them under 40 CFR 761 thus exempting from regulation under WAC 173-303.

   Basis: These requirements reflect the requirements found in 40 CFR 761.65(b) and WAC 173-303-71.

5.0 REFERENCES

1. DOE-RL Order 5480.10A, "Industrial Hygiene Program."

2. EPA, Title 40, Code of Federal Regulations, 61, Subpart M, "National Emission Standards for Asbestos."

3. EPA, Title 40, Code of Federal Regulations, 112, "Oil Pollution Prevention."

4. EPA, Title 40, Code of Federal Regulations, 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution In Commerce, and Use Prohibitions."

5. WAC 173-303, "Dangerous Waste Regulations."

6. Fleet Operations, Transportation and Maintenance Management Standard Operating Procedure 25.2, "Disposal of Asbestos at Central Landfill."

7. WHC-CM-4-3, Industrial Safety Manual.
   Standard C-1, "Polychlorinated Biphenyls."
   Standard C-3, "Asbestos Control."

8. WHC-CM-7-5, Environmental Compliance.
   Part G, "Standard for Nonradioactive-Nonhazardous Solid Waste Disposal."
   Part H, "Radioactive Solid Waste Storage and Disposal."

9. WHC-EP-0063-1, Hanford Radioactive Solid Waste Packaging, Storage, and Disposal Requirements.